

MMA™ 835T/875T/8150T

MODULAR MIXER AMPLIFIER

OPERATING GUIDE



PEAVEY®
ARCHITECTURAL ACOUSTICS®



Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Risk of electrical shock – DO NOT OPEN!

CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.



Este símbolo tiene el propósito de alertar al usuario de la presencia de "(voltaje) peligroso" que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto.

PRECAUCION: Riesgo de corrientazo – No abra.

PRECAUCION: Para disminuir el riesgo de corrientazo, no abra la cubierta. No hay piezas adentro que el usuario pueda reparar. Deje todo mantenimiento a los técnicos calificados.

ADVERTENCIA: Para evitar corrientazos o peligro de incendio, no deje expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea más advertencias en la guía de operación.



Ce symbole est utilisé pur indiquer à l'utilisateur la présence à l'intérieur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions sur l'utilisation et l'entretien (service) de l'appareil dans la littérature accompagnant le produit.

ATTENTION: Risques de choc électrique – NE PAS OUVRIR!

ATTENTION: Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien à un personnel qualifié.

AVERTISSEMENT: Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplémentaires situés dans le guide.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.



Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

VORSICHT: Risiko – Elektrischer Schlag! Nicht öffnen!

VORSICHT: Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

ACHTUNG: Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

MMA™ 835T/ 875T/8150T

FEATURES

- 9 channel mixer/power amplifier system
- 20 - 20 kHz frequency response
- Bridging input/output
- Dedicated program input
- Contour switch (special equalization)
- Bass and treble controls
- Preamp output/power amp input patch capability
- Short circuit and thermal protection
- SPS™ protection circuitry
- External volume control capability
- Built-in low cut filter (switchable from rear panel)
- Plug in module capability
- Output impedance variations: 4 ohm, 8 ohm, 25 V, and 70 V
- Rack-mountable or stand alone package
- Two mute lines

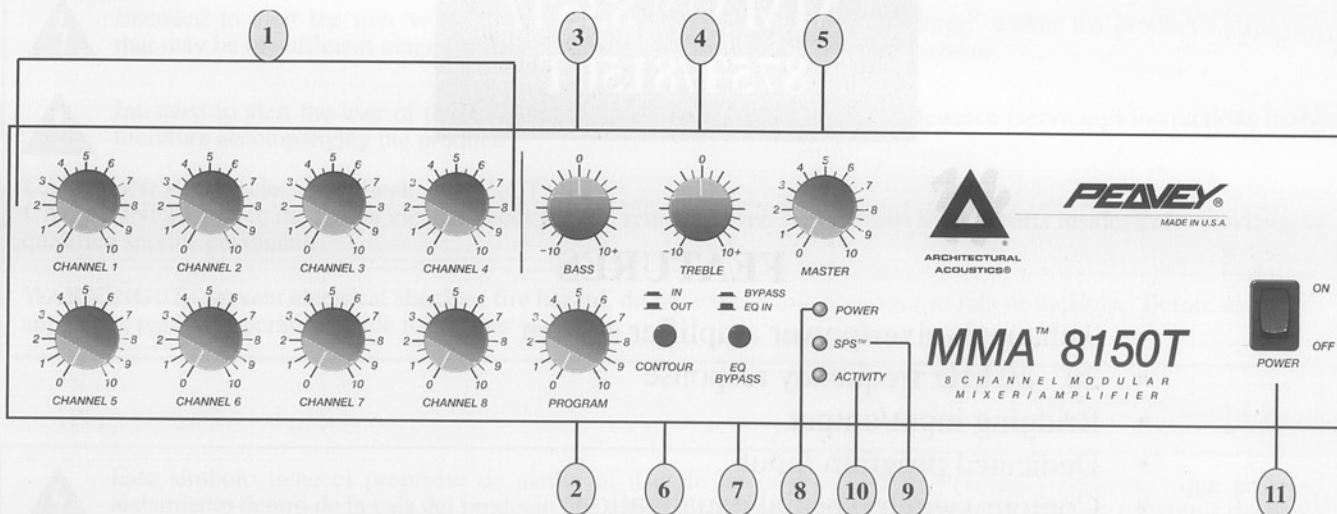
The Architectural Acoustics MMA™ 835T/875T/8150T are high quality mixer amplifiers with nine separate input channels. Each channel provides a level control, and the master output section features bass and treble EQ controls (defeatable) and special equalization contour.

The MMA™ 835T/875T/8150T provides unmatched application flexibility with an array of optional plug-in modules, allowing each system to be tailor-made for specialized installations. Input modules may be loaded-in as required for varying applications, number of input channels, special functions, etc.

The program input includes its own level control and is totally separate from the other eight channels. External signals may be patched in at this point as a system auxiliary input or the ninth input channel. Signals appearing at this input are routed directly to the master summing amplifier stage and are mixed with signals from the other eight channels. Systems requiring a single input may use the program input and the purchase of an input module is not necessary. The program level control regulates the level of this input and the signal is routed through the system bass and treble controls.

The power sections deliver rated output (35, 75, or 150 watts) and includes built-in SPS™ protection, which allows the MMA™ 835T/875T/8150T to produce full power capability without audible power amp clipping. A broad load impedance range is provided and twenty-five and seventy volt fully isolated line outputs are standard equipment. The MMA™ 835T/875T/8150T are packaged as stand-alone units but will also rack-mount into a standard 19" rack with optional rack-mount kit.

Front Panel:



CHANNEL LEVEL CONTROL (1)

Controls the signal level at the channel input.

PROGRAM LEVEL CONTROL (2)

Controls the signal level at the program input.

LOW EQ CONTROL (3)

Active equalization control that adjusts the low frequency response. Clockwise rotation boosts lows while counterclockwise rotation provides a cut (reduction) of the low frequencies (± 10 dB).

HIGH EQ CONTROL (4)

Active equalization control that adjusts the high frequency response. Clockwise rotation boosts highs while counterclockwise rotation provides a cut (reduction) of the high frequencies (± 10 dB).

MASTER (5)

Controls the overall volume level of the system.

CONTOUR SWITCH (6)

The "in" position of this switch provides 6 dB boost at 100 Hz and 6 dB at 10 kHz. The "out" position removes boost from the system.

EQ BYPASS (7)

The "in" position of this switch bypasses bass and treble equalization. The "out" position allows operation of the equalization.

POWER ON LED (8)

Indicates when AC power is being supplied to the unit.

SPS™ ACTIVE LED (9)

Indicates when SPS™ circuitry is active.

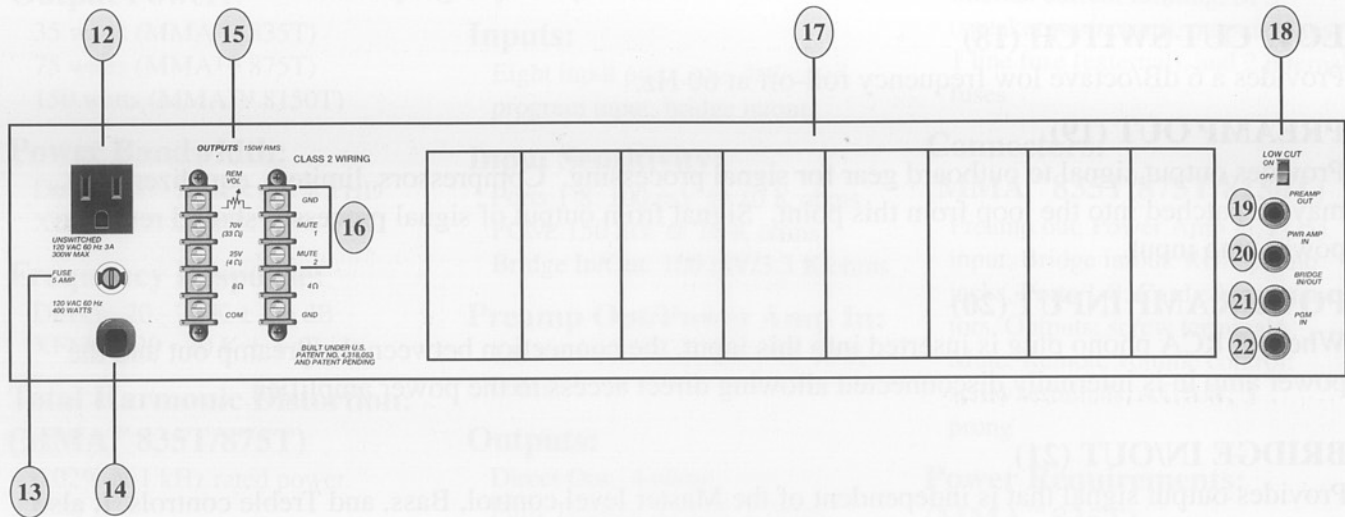
ACTIVITY LED (10)

Indicates output level from the master mixing stage. The LED lights when the output level is less than 25 dB below rated output.

POWER SWITCH (11)

Depress to "on" position to turn on.

Back Panel:



AC OUTLET (UNSWITCHED) (12)

Provides AC power for auxiliary equipment with power consumption 300 watts maximum.

FUSE (13)



WARNING: THE FUSE SHOULD ONLY BE REPLACED WHEN THE POWER CORD HAS BEEN DISCONNECTED FROM ITS POWER SOURCE.



CAUTION: USING A FUSE LARGER THAN THE RECOMMENDED SIZE COULD RESULT IN PERMANENT DAMAGE TO THE UNIT.

The fuse is located within the cap of the fuseholder. If the fuse should fail, IT MUST BE REPLACED WITH THE SAME TYPE AND VALUE IN ORDER TO AVOID DAMAGE TO THE EQUIPMENT AND TO PREVENT VOIDING THE WARRANTY. If the unit repeatedly blows fuses, it should be taken to a qualified service center for repair.

POWER CORD (14)

Connect to 120 V AC power source.

OUTPUTS (15)



A direct output, as well as several transformer outputs, are provided to allow the proper interface between the amplifier and the speaker system. The direct output allows direct connection to a 4 ohm speaker system. To use this output, connect the speaker (or speakers) from the GND terminal to the 4 ohm terminal. 8 ohm, 25 volt, and 70 volt outputs are also provided. For 8 ohm speaker systems, connect between the COM terminal and the 8 ohm output. 25 V and 70 V outputs are also provided for "constant voltage" speaker distribution systems. The 25 V output connection is between the COM terminal and the 25 V terminal; and the 70 V output is between the COM terminal and the 70 V terminal.

MUTE (16)

Plug in modules are available with muting function. The mute lines may be activated with an external switch at this point.

MODULE INPUT PORTS (17)

Accepts plug-in modules for all eight channels. Modules are optional and should be selected by installation requirements. **NOTE:** All modules will function in any of the eight ports.

LOW CUT SWITCH (18)

Provides a 6 dB/octave low frequency roll-off at 60 Hz.

PREAMP OUT (19)

Provides output signal to outboard gear for signal processing. Compressors, limiters, equalizers, etc., may be patched into the loop from this point. Signal from output of signal processor should return to power amp input.

POWER AMP INPUT (20)

When an RCA phono plug is inserted into this input, the connection between the preamp out and the power amp in is internally disconnected allowing direct access to the power amplifier.

BRIDGE IN/OUT (21)

Provides output signal that is independent of the Master level control, Bass, and Treble controls. It also may be used as a mixing output point when the similar terminal of another amplifier is connected to this terminal. A separate tape recording output may be taken from this point without interaction of EQ and master level control.

PROGRAM IN (22)

Accepts signals from other sources such as another mixer or mixer amplifier. Signal level at this input is controlled by the Program level control and is fed to the Master output. The Program In may be regarded as channel "nine" without plug-in module capability. **NOTE:** This input is muted whenever the Mute 1 mute line is grounded.

SPECIFICATIONS

Output Power:

35 watts (MMA™ 835T)
75 watts (MMA™ 875T)
150 watts (MMA™ 8150T)

Power Bandwidth:

Direct: 20 - 20 K < 0.5% THD
XFMR: 50 - 20 K < 0.5% THD

Frequency Response:

Direct: 20 - 20 K ± 1.0 dB
XFMR: 20 - 20 K ± 3 dB

Total Harmonic Distortion: (MMA™ 835T/875T)

0.02% at 1 kHz rated power

Total Harmonic Distortion: (MMA™ 8150T)

0.02% at 1 kHz, 145 W RMS
0.05% at 1 kHz, 150 W RMS

Output Regulation:

Direct: < 0.5 dB
XFMR: < 1.0 dB

Signal to Noise Ratio:

Master Volume Min: 95 dB
Master Volume Max: 77 dB
Power Amp Only: 95 dB

Tone Controls:

Bass: ± 10 dB @ 100 Hz
Treble: ± 10 dB @ 10 kHz

Contour:

+6 dB @ 100 Hz
+6 dB @ 10 kHz

Inputs:

Eight input ports, one dedicated
program input, bridge in/out

Input Sensitivity:

Ports 1-8: 100 mV @ 10 K ohms
PGM: 150 mV @ 10 K ohms
Bridge In/Out: 100 mV/3.3 K ohms

Preamp Out/Power Amp In:

1.0 V @ 600 ohms/1.0 V @ 15 K
ohms

Outputs:

Direct Out: 4 ohms
Fully Isolated XFMR: 8 ohms,
25 V, 70 V (100 V Export)

Controls:

9 input gain controls, 1 bass
control, 1 treble control, 1 contour
switch, master gain control, 1
power switch, 1 EQ defeat switch,
1 low-cut switch

Indicators:

Power LED, Activity LED (green),
SPS™ Active LED (yellow)

Protection:

(MMA™ 835T/875T/8150T)

Internal current limiting, SPS™
(speaker protection), output relays,
1 line fuse (external), and 2 internal
fuses

Connectors:

(MMA™ 835T/875T/8150T)

Preamp out, Power Amp in, PGM
input, Bridge in/out: RCA phono
jacks, Ports 1-8: Card edge connec-
tors, Outputs: screw terminals,
Mute, Remote volume control:
screw terminals, AC SJT, 3
prong

Power Requirements:

(MMA™ 835T)

95 W, 60 Hz, 120 V AC Domestic
95 W, 50/60 Hz,
220/230-240 V AC Export

Power Requirements:

(MMA™ 875T)

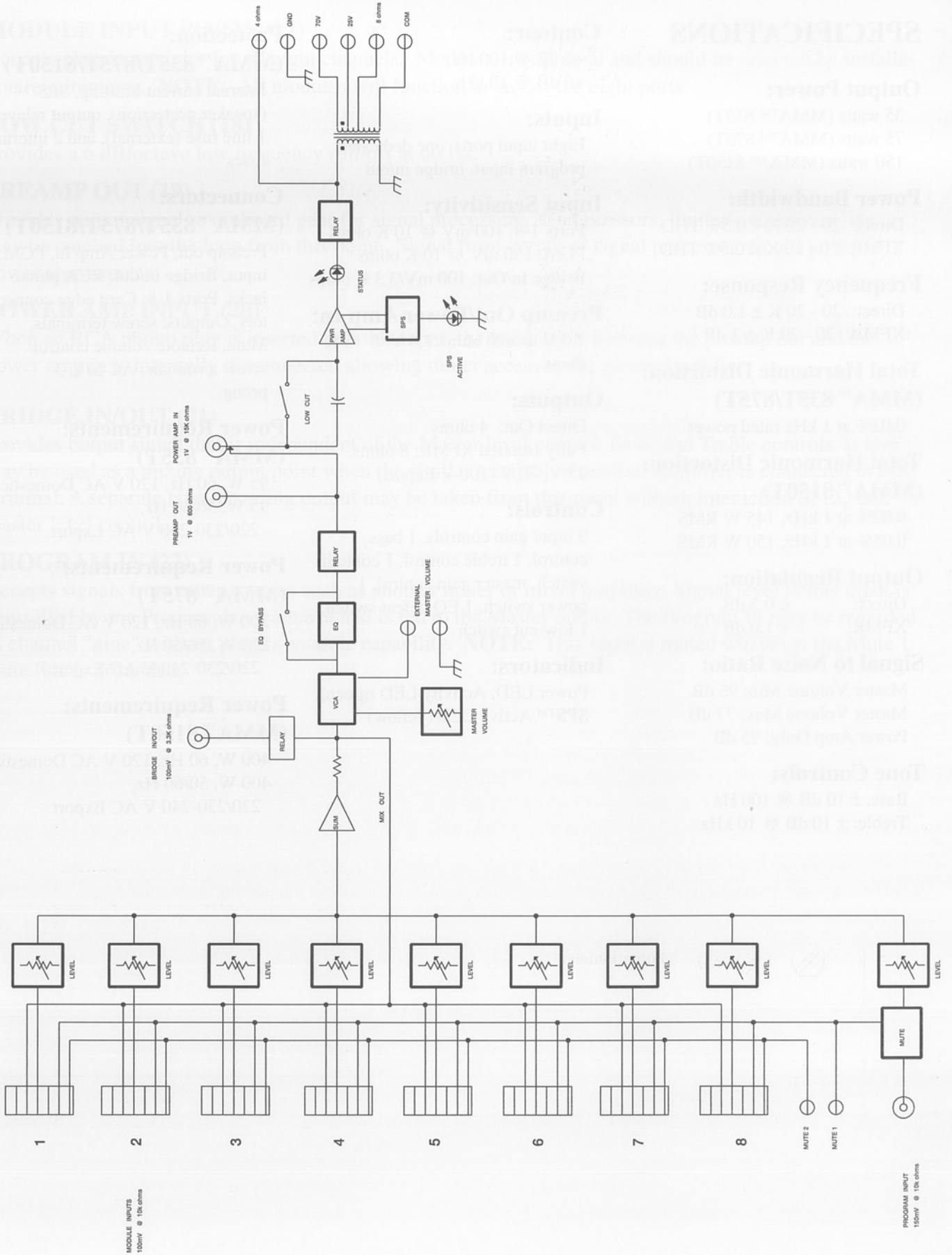
200 W, 60 Hz, 120 V AC Domestic
200 W, 50/60 Hz,
220/230-240 V AC Export

Power Requirements:

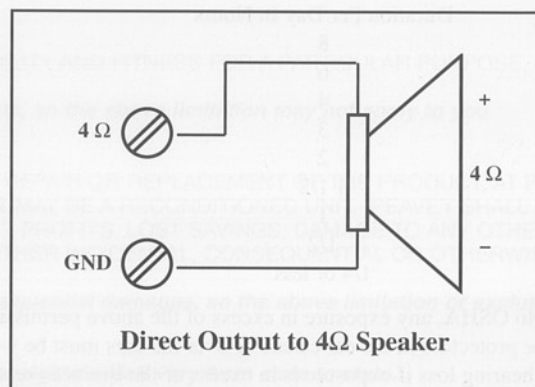
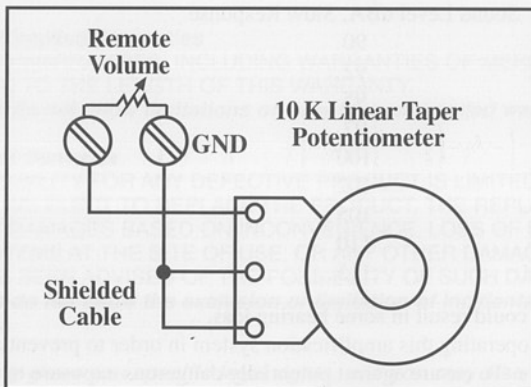
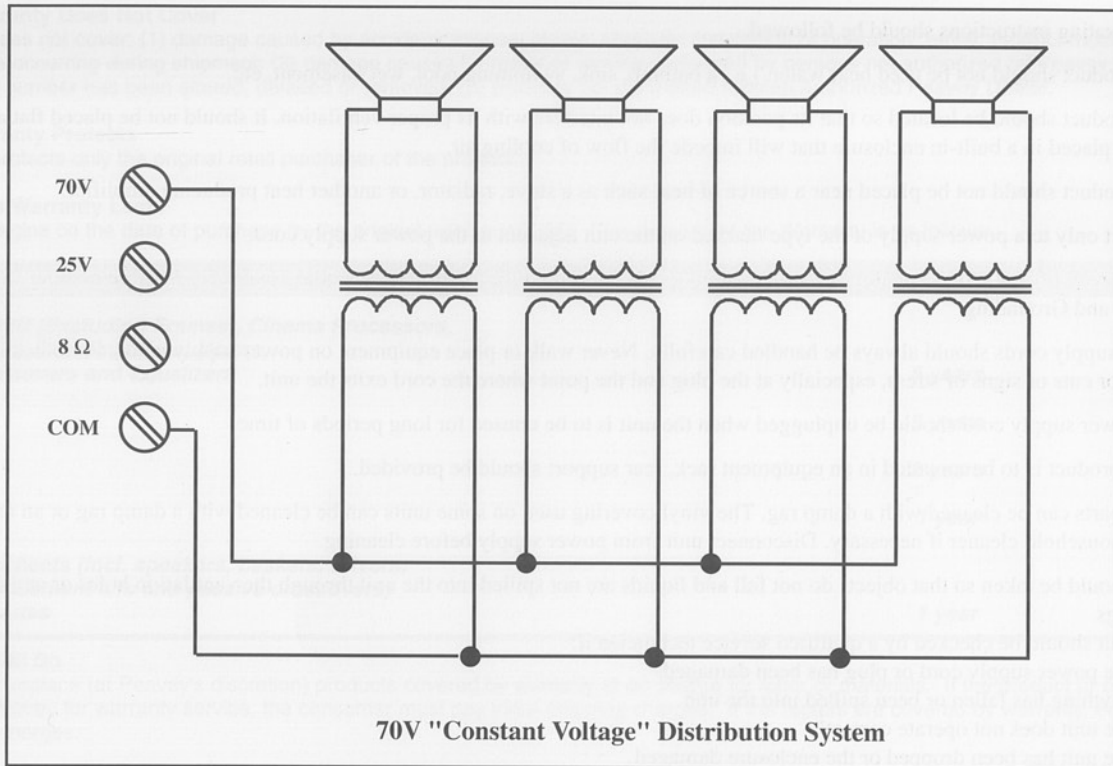
(MMA™ 8150T)

400 W, 60 Hz, 120 V AC Domestic
400 W, 50/60 Hz,
220/230-240 V AC Export

BLOCK DIAGRAM



WIRING DIAGRAMS



IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following:

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

SAVE THESE INSTRUCTIONS!

Architectural Acoustics®

PEAVEY ELECTRONICS CORPORATION LIMITED WARRANTY

Effective Date: July 1, 1998

What This Warranty Covers

Your Peavey Warranty covers defects in material and workmanship in Peavey products purchased and serviced in the U.S.A. and Canada.

What This Warranty Does Not Cover

The Warranty does not cover: (1) damage caused by accident, misuse, abuse, improper installation or operation, rental, product modification or neglect; (2) damage occurring during shipment; (3) damage caused by repair or service performed by persons not authorized by Peavey; (4) products on which the serial number has been altered, defaced or removed; (5) products not purchased from an Authorized Peavey Dealer.

Who This Warranty Protects

This Warranty protects only the original retail purchaser of the product.

How Long This Warranty Lasts

The Warranty begins on the date of purchase by the original retail purchaser. The duration of the Warranty is as follows:

Product Category	Duration
MediaMatrix® DPU (Excluding Frames), Cinema Processors, Power Amplifiers, Pre-Amplifiers, Mixers, Electronic Crossovers and Equalizers	5 years
Loudspeakers	5 years
Microphones	2 years
Frames	1 year
Speaker Components (incl. speakers, baskets, drivers, diaphragm replacement kits and passive crossovers) and all Accessories	1 year

What Peavey Will Do

We will repair or replace (at Peavey's discretion) products covered by warranty at no charge for labor or materials. If the product or component must be shipped to Peavey for warranty service, the consumer must pay initial shipping charges. If the repairs are covered by warranty, Peavey will pay the return shipping charges.

How To Get Warranty Service

(1) Take the defective item and your sales receipt or other proof of date of purchase to your Authorized Peavey Dealer or Authorized Peavey Service Center.

OR

(2) Ship the defective item, prepaid, to Peavey Electronics Corporation, International Service Center, 412 Highway 11 & 80 East, Meridian, MS 39301 or Peavey Canada Ltd., 95 Shields Court, Markham, Ontario, Canada L3R 9T5. Include a detailed description of the problem, together with a copy of your sales receipt or other proof of date of purchase as evidence of warranty coverage. Also provide a complete return address.

OR

(3) All MediaMatrix® Frames needing repair, should be shipped prepaid to Peavey Electronics Corporation, International Service Center, 412 Highway 11 & 80 East, Meridian, MS 39301

Limitation of Implied Warranties

ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Exclusions of Damages

PEAVEY'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT PEAVEY'S OPTION. IF WE ELECT TO REPLACE THE PRODUCT, THE REPLACEMENT MAY BE A RECONDITIONED UNIT. PEAVEY SHALL NOT BE LIABLE FOR DAMAGES BASED ON INCONVENIENCE, LOSS OF USE, LOST PROFITS, LOST SAVINGS, DAMAGE TO ANY OTHER EQUIPMENT OR OTHER ITEMS AT THE SITE OF USE, OR ANY OTHER DAMAGES WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you have any questions about this warranty or service received or if you need assistance in locating an Authorized Service Center, please contact the Peavey International Service Center at (601) 483-5365 / Peavey Canada Ltd. at (905) 475-2578.

Features and specifications subject to change without notice.

PEAVEY ARCHITECTURAL ACOUSTICS

PEAVEY ELECTRONICS CORPORATION LIMITED WARRANTY

1. This warranty covers defects in material and workmanship in Peavey products purchased and serviced in the U.S.A. and Canada.
2. The warranty is limited to the original purchaser of the product.
3. The warranty is void if the product is used for any purpose other than that intended by the manufacturer.
4. The warranty is void if the product is damaged by accident, misuse, neglect, or any other cause not covered by this warranty.
5. The warranty is void if the product is damaged by fire, flood, or any other cause not covered by this warranty.
6. The warranty is void if the product is damaged by any other cause not covered by this warranty.
7. The warranty is void if the product is damaged by any other cause not covered by this warranty.
8. The warranty is void if the product is damaged by any other cause not covered by this warranty.

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#80302313

Printed in U.S.A. 11/95

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